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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,259	11/28/2005	Jean-Paul Dagois	PF020145	8623

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EXAMINER	
MA, CALVIN	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,259	DAGOIS, JEAN-PAUL	
	Examiner	Art Unit	
	CALVIN C. MA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 4/20/2010 has been entered and considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka et al. (US Patent: 6,771,235) in view of Lai (US Patent: 6,501,226).

As to claim 1, Ishizuka discloses a device for displaying images comprising:

an image display panel (11)configured such that each image to be displayed is divided into pixels or subpixels having luminous intensity data allocated thereto (i.e. the video data from module 12 creates the proper intensity data in forms of currents 23

applied to the circuitry 14 to crease display in the pixels 11) (see Fig. 10, Col. 7, Lines 1-30), said image display panel comprising a first array (14) and a second array of electrodes (13) (see Fig. 9-10, Col. 6, Lines 39-68) which serve an array of light-emitting cells (i.e. the matrix array of light emitting element E(m,n)), where each light-emitting cell is assigned to a pixel or subpixel of images to be display and is powered for light emission between an electrode of the first array and an electrode of the second array effecting between them an intrinsic capacitor (i.e. C in Figure 1) C_i power supply means (i.e. the panel power supply means which provide the potential Vp and Vcc) for generating a potential difference between two terminals (i.e. the two terminals are the Vp terminal and the ground terminal or Vcc terminal) and drive means:

adapted for successively connecting each electrode of the second array to one of the terminals of the power supply means (i.e. the scanning of the cathode line 13 means that the electrode are scanned or successively connected to the terminals Vcc or ground) (see Fig. 10, Col. 6, Lines 39-48),

adapted for, during each sequence of connection of an electrode of the second array, simultaneously connecting one or more or all the electrodes of the first array to the other terminal of the power supply means to power for light emission at least one of the light-emitting cells linked both to the respective electrode of the second array and the respective electrode or electrodes of the first array (i.e. during the scanning of the array of scan line electrode both data and scan line are connected to the respective power source by switches) (see Fig. 10, Col. 6, Lines 38-60), and adapted for, during each sequence of connection of an electrode of the second array, to transfer to each

light-emitting cell to be powered charge of the intrinsic capacitors of the other cells linked to the same electrode of the first array as the cell to be powered (i.e. the charge of the intrinsic capacitance are link to the electrode of the first array and since the first array during scanning the second array 13 may have both switches off this means that charges in the cell can be transferred when the switch is changed and the first array) (see Fig. 16, Col. 9, Lines 15-35).

However Ishizuka does not explicitly teach wherein said charge has been accumulated during a just preceding sequence of connection of another electrode of the second array and the other terminal of the power supply means in order to allow said power supply means to power at least one of the cells and adapted for, during each sequence of connection of an electrode of the second array, modulating both the duration of connection of each electrode of the first array to said power supply means and the duration of the transfer of charge of the intrinsic capacitors of the other light-emitting cells linked to the same electrode of the first array as a function of the luminous intensity datum of the light-emitting cell that is to be powered for light emission between this electrode of the first array and this electrode of the second array.

Lai teaches wherein said charge has been accumulated during a just preceding sequence of connection of another electrode of the second array and the other terminal of the power supply means in order to allow said power supply means to power at least one of the cells (i.e. column control unit 2 is able to charge the columns separately therefore forming two different array one charging earlier than the other array and the array is link to the power supply 10 which drives the unit) (see Lai Fig. 7, see Fig. 7, Col.

8, Lines 25-67), and adapted for, during each sequence of connection of an electrode of the second array, modulating both the duration of connection of each electrode of the first array to said power supply means and the duration of the transfer of charge of the intrinsic capacitors of the other light-emitting cells linked to the same electrode of the first array as a function of the luminous intensity datum of the light-emitting cell that is to be powered for light emission between this electrode of the first array and this electrode of the second array (i.e. the system of Lai as demonstrated in figure 7 is able to modulate the switching so that the two different array are able to be rebalance via the CEB connection where the charges are distributed to both side of the arrays in this way reducing the power through modulating the switching period which is a function of the display data signal via the circuitry 4 which controls the row and column switching to create a working display of the inputted data as a display matrix of emissive elements (see Fig. 7, Col. 8, Lines 25-67).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the charge balancing mechanism of Lai in the OLED circuitry of Ishizuka in order to reduce the current and thereby conserve power in the OLED display system (see Lai Col. 3, Lines 1-20).

As to claim 2, Ishizuka teaches the device as claimed in claim 1, wherein the drive means are adapted so that, during each sequence of connection of an electrode of the second array, the transfer of charge via each of the electrodes of the first array is

favored at the expense of the connection of these electrodes to said power supply means (i.e. the charge are move from the first array electrode to the rest of the array and the electrode are set to ground or neutral this means that the selected electrode has charges transferred from the power source where the non-selected one are not charged) (see Fig. 10, Col. 6, 39-68).

As to claim 3, Ishizuka teaches the device as claimed in claim 1, wherein each image to be displayed being divided into pixels or subpixels to which are allocated luminous intensity data(i.e. the brightness level is to create gradation level) (see Fig. 11, Col. 7, Lines 40-67), each cell of the panel being assigned to a pixel or subpixel of the images to be displayed, it comprises means (12) of processing said data so as to be able, during each sequence of connection of an electrode of the second array, to modulate the duration of connection t'_{a1} of each electrode of the first array to said power supply means and to modulate the duration of transfer of charge t'_{a2} of the intrinsic capacitors of the other cells linked to the same electrode of the first array (i.e. the control PWM signal allows the modulation of the circuitry to create adequate gradation control), as a function of the luminous intensity datum of the cell powered between this electrode of the first array and this electrode of the second array (i.e. the overall control is applied by the PWM control which according to gradation level matches the signal and create the proper control sequences for both first array 14 and second array 13) (see Fig. 10, 11, Col. 6 Line 40-Col. 7 Line 67).

As to claim 4, Ishizuka teaches the device as claimed in claim 3, wherein the drive means (7,8) are adapted so that, during each sequence of connection of an electrode of the second array, said connection of each electrode of the first array to said power supply means is carried out, as appropriate, at the end of a sequence and said transfer of charges is carried out, as appropriate, at the start of a sequence (i.e. since the sequence is the scanning of the data to each of the cell the electrodes must adjust at the beginning of a given line which is also the end of the previous scanning line, therefore both connection to power and transfer of charges happens at these junctions) (see Fig. 10, Col. 6, Lines 37-68).

As to claim 5 and 6, the adapted to clauses used in claim 5 and 6, are analyzed to have not limited the scope of the claims and are therefore rejected on the same ground as claim 1 which they are depended on (see MPEP 2111.04).

As to claim 7, Ishizuka teaches the device as claimed in claim 1, wherein said cells are electroluminescent (see Fig. 10, Col. 6, Lines 40-60).

As to claim 8, Ishizuka teaches the device as claimed in claim 7, wherein each cell comprises an organic electroluminescent layer (see Fig. 9, Col. 6, Lines 43-47).

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka in view of Lai as applied in claims 1-8 and further in view of Aziz et al. (U.S. Patent 6,811,896).

As to claim 9, Ishizuka and Lai teaches the device as claimed in claim 8, but does not explicitly teach wherein the thickness of said layer is less than or equal to 0.2 μm. Aziz teaches the layer of organic electroluminescent layer being equal to 200 nanometers (which is exactly 0.2μm) (see Col. 1, Lines 55-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the thickness layer of Aziz in the overall display design of Ishizuka and Kane in order to, “reduce OLED shorting.” (Aziz Col. 2, Lines 40-46).

Response to Arguments

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Calvin Ma whose telephone number is (571)270-1713. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma

June 4, 2010

/Chanh Nguyen/

Supervisory Patent Examiner, Art Unit 2629